



# WATER MANAGEMENT PROGRAM

## Objective

The Rocky Mountain Oilfield Testing Center (RMOTC) Water Management Program recognizes water's important role to a state's economic prosperity and to the citizen's quality of life. The program focuses on testing, demonstrating, and evaluating a broad mix of complementary technologies spanning reservoir management and production innovations to water treatment and beneficial reuse.

## Background

RMOTC's field test site, Naval Petroleum Reserve No. 3 (NPR-3), is characterized as a stripper oil field. Typical of most stripper fields, NPR-3 produces a significant quantity of water along with its daily oil production. Understanding that water management is an issue shared by most operators, RMOTC sought to develop a comprehensive testing and demonstration center, focused on produced water and associated issues.

testing these technologies whether it is applied in the form of reservoir management, administered in the production phase, or managed as a resource through beneficial reuse. Some examples include:

- *Formation Micro-Imaging* — Improved reservoir management by identifying water saturated zones prior to drilling.
- *GeoTech* — A device to optimize pumping high-water-cut wells through automation and variable speed control, which can be remotely monitored.
- *ChevronTexaco* — Kinetic pilot wetlands study to evaluate treatment capabilities of wetlands to improve the quality of produced water.
- *Bio-Treatment Facility* — Passive treatment facility (constructed wetland) to biologically treat more than 40,000 barrels of produced water for surface discharge.
- *Water Reuse Center* — Facility to demonstrate the feasibility of raising aquaculture and hydroponic crops in untreated produced water.

## Future Work

- Upgrade the existing bio-treatment facility with treatment cells to pilot test other producers' water
- Second and third generation evaluations of PSI Pumps and GeoTech solutions
- Beneficial reuse studies in partnership with ChevronTexaco and Clemson University
- Treatment train demonstrations employing multiple technologies
- Technology transfer through technical publications, presentations, and workshops

## Contact

For more information about this opportunity or to discuss your testing needs contact RMOTC toll free at 888.599.2200, or visit our website at [www.rmotc.com](http://www.rmotc.com).



## Experience

Of great interest to today's producer is merging environmental stewardship and economic viability in an unpredictable industry climate. Since 1996, RMOTC has developed a base for



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